

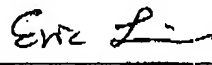





Exhibit A

ASAC

Invention Disclosure

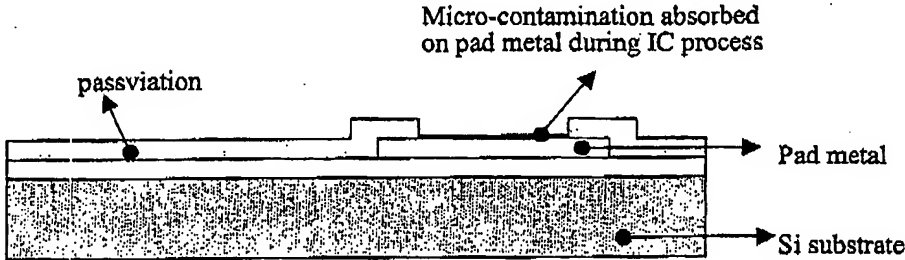
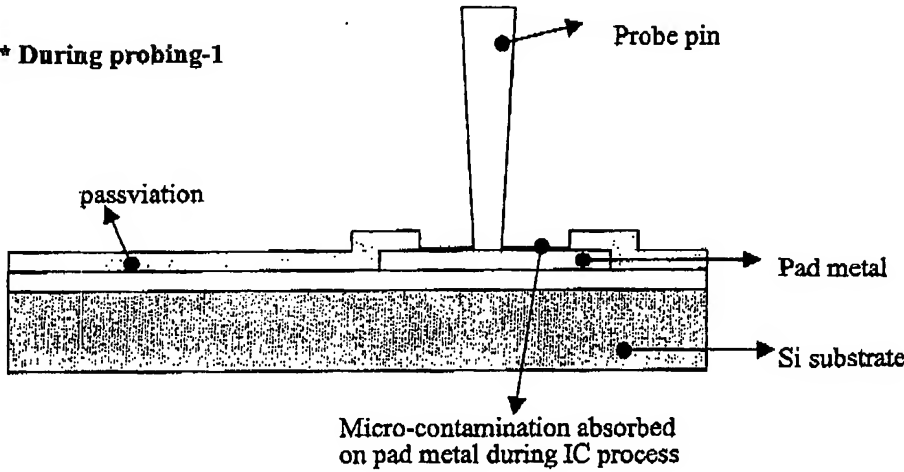
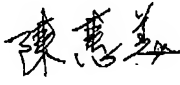



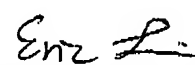

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Full Name(s) of Inventor(s)		Employee No.	Department	Dept. Code	Tel No.	For Use by IP Law Disclosure No.
English	Chinese					
HMChen	陳慧珍	058	IEPM			18602-005
CKChou						Received Date (Time Stamp)
JYLee	李維強	006				
HTLiu						
Title of Invention – • English: A Clean process for finishing IC product • Chinese						
Background Information – Current Practice and Disadvantages All the final process steps of metal pad or metal bump are chemical process in the current IC process. There is micro-contamination absorbed on the final metal surface. Over killed problem happen sometimes during chip probing due to micro-contamination on metal pad.						
Main Points of Claim (Please List Item by Item) Add in a physical clean after finish IC process before chip probing. The physical clean can be a inner gas plasma, sputtering etch, ion mill or any bombardment clean.						
Problem Solved or Improvements Obtained by this Invention (Please List Item by Item) To reduce over killed problem during chip probing.						
Keyword Search for Patent/Literatures						
Patent/Literatures Search Result (Please Specify Similar Patent No. and Literature Citation)						
Detailed Description of Invention – (Continued Next Page)						
Witnesses: The Two Witnesses whose Signatures appear below have <u>Read</u> and <u>Understand</u> this Entire Invention Disclosure.		Disclosure Submitted by				
		Inventor's Signature Date		Inventor's Signature Date		
						
		Inventor's Signature Date		Inventor's Signature Date		
Signature of Witness Date 						
Signature of Witness Date 						



Invention Disclosure

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Detailed Description of Invention – Continued		For Use by IP Law	
		Disclosure No.	
		MES 02-005	
Current practice 1:			
* After finish IC process			
			
* During probing-1			
			
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		Inventor's Signature Date	Inventor's Signature Date
Signature of Witness	Date		
			
Signature of Witness	Date		
			



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Detailed Description of Invention – Continued		For Use by IP Law							
		Disclosure No.							
		116902-005							
<p>Current practice 1:</p> <p>* During probing-2</p> <p>Diagram illustrating the current practice during probing-2. A probe pin is shown touching a pad metal on a Si substrate. The diagram labels the following components: Probe pin, Micro-contamination and metal residual adhibited on probe pin tip, passivation, Pad metal, Si substrate, and Micro-contamination absorbed on pad metal during IC process.</p>									
<p>Witnesses: The Two Witnesses whose Signatures appear below have <u>Read</u> and <u>Understand</u> this Entire Invention Disclosure.</p> <table border="1"><thead><tr><th>Signature of Witness</th><th>Date</th></tr></thead><tbody><tr><td></td><td></td></tr><tr><td>陳盈智</td><td></td></tr></tbody></table>		Signature of Witness	Date			陳盈智		Disclosure Submitted by	
		Signature of Witness	Date						
		陳盈智							
Inventor's Signature Date		Inventor's Signature Date							
Inventor's Signature Date		Inventor's Signature Date							



Invention Disclosure

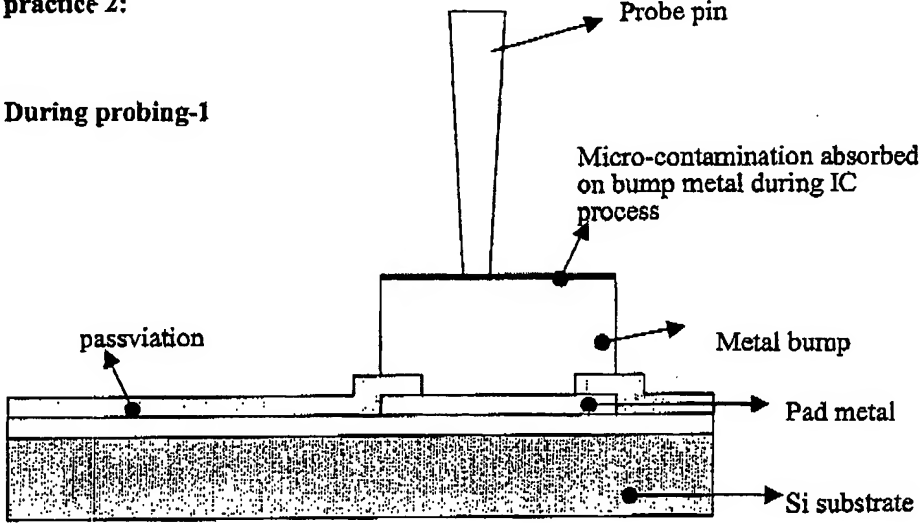
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Detailed Description of Invention – Continued		For Use by IP Law	
		Disclosure No.	
		MEG02-005	
<p>Current practice 1:</p> <p>* During probing-3</p> <p>passivation</p> <p>Probe pin</p> <p>Micro-contamination and metal residual adhibited on probe pin tip, the micro-contamination cause over kill of open circuit during CP test</p> <p>Pad metal</p> <p>Si substrate</p> <p>Micro-contamination absorbed on pad metal during IC process</p>			
<p>Witnesses: The Two Witnesses whose Signatures appear below have <u>Read</u> and <u>Understand</u> this Entire Invention Disclosure.</p> <p>Signature of Witness Date</p> <p>Eric Li</p> <p>Signature of Witness Date</p> <p>陳亞智</p>		Disclosure Submitted by	
		Inventor's Signature Date	
		陳惠美	
		Inventor's Signature Date	
Signature of Witness Date			
陳亞智			
Signature of Witness Date			
JT Lee			
Signature of Witness Date			
HT Lin			



Invention Disclosure

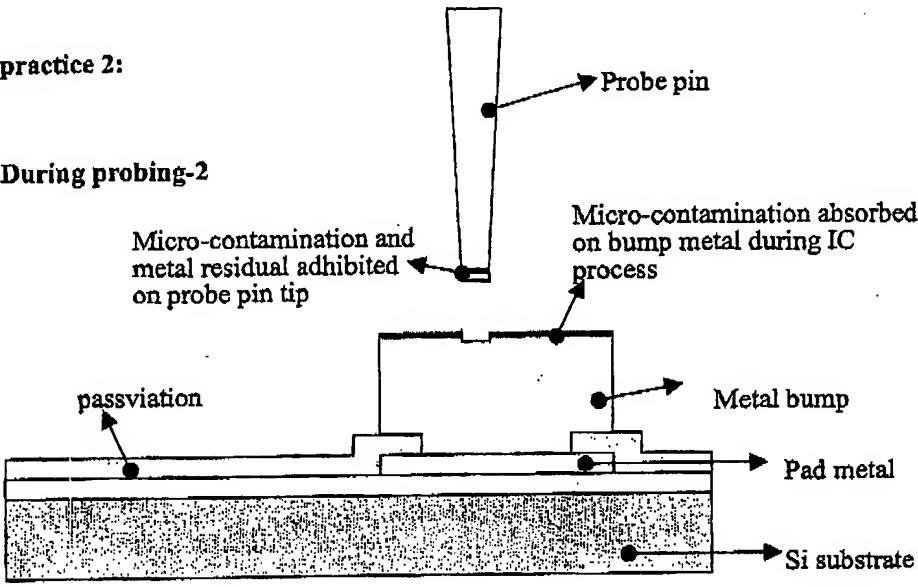
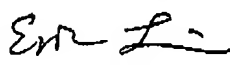
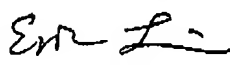
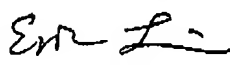
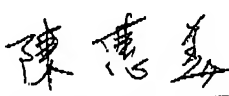

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Detailed Description of Invention – Continued		For Use by IP Law							
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		MEG 02-005							
<p>Current practice 2:</p> <p>* During probing-1</p> 									
<p>Witnesses: The Two Witnesses whose Signatures appear below have <u>Read</u> and <u>Understand</u> this Entire Invention Disclosure.</p> <table border="1"><thead><tr><th>Signature of Witness</th><th>Date</th></tr></thead><tbody><tr><td>Eric Li</td><td></td></tr><tr><td>陳盈智</td><td></td></tr></tbody></table>		Signature of Witness	Date	Eric Li		陳盈智		Disclosure Submitted by	
		Signature of Witness	Date						
		Eric Li							
		陳盈智							
Inventor's Signature Date		Inventor's Signature Date							
陳慧美		Chen							
Inventor's Signature Date		Inventor's Signature Date							
JY Lee		HT Liu							



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Detailed Description of Invention – Continued		For Use by IP Law							
		Disclosure No.							
		MEG02-005							
<p>Current practice 2:</p> <p>* During probing-2</p>  <p>Micro-contamination and metal residual adhibited on probe pin tip</p> <p>Micro-contamination absorbed on bump metal during IC process</p> <p>passivation</p> <p>Metal bump</p> <p>Pad metal</p> <p>Si substrate</p>									
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Inventor's Signature Date		Inventor's Signature Date							
									
Inventor's Signature Date		Inventor's Signature Date							
JYLee		HTLin							



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Detailed Description of Invention – Continued		For Use by IP Law			
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		MEG02-005			
<p>Current practice 2:</p> <p>* During probing-3</p> <p>Micro-contamination and metal residual adhibited on probe pin tip, the micro-contamination cause over kill of open circuit during CP test</p> <p>Micro-contamination absorbed on bump metal during IC process</p> <p>passivation</p> <p>Metal bump</p> <p>Pad metal</p> <p>Si substrate</p>					
<p>Witnesses: The Two Witnesses whose Signatures appear below have <u>Read</u> and <u>Understand</u> this Entire Invention Disclosure.</p> <p>Signature of Witness Date</p> <p>Eric L.</p> <p>Signature of Witness Date</p> <p>陳盈智</p>		<p>Disclosure Submitted by</p>			
		<p>Inventor's Signature Date</p> <p>陳惠美</p>		<p>Inventor's Signature Date</p> <p>CK Chan</p>	
		<p>Inventor's Signature Date</p> <p>JY Lee</p>		<p>Inventor's Signature Date</p> <p>HT Liu</p>	



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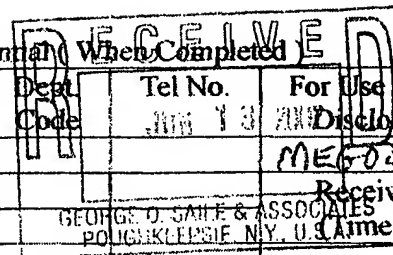
Detailed Description of Invention – Continued	For Use by IP Law Disclosure No. MEG02-005	
<p>New invention:</p> <p>* After finish IC process</p> <p>Add in a physical clean ex. Ar sputtering or ion mill to remove micro-contamination. The surface become very clean with no chemical absorption.</p> <div style="text-align: center; margin: 20px 0;"> </div> <div style="text-align: center; margin: 20px 0;"> </div>		
Witnesses: The Two Witnesses whose Signatures appear below have <u>Read</u> and <u>Understand</u> this Entire Invention Disclosure.	Disclosure Submitted by	
Signature of Witness Date	Inventor's Signature Date	Inventor's Signature Date
Eric L.		
Signature of Witness Date	Inventor's Signature Date	Inventor's Signature Date
	JY Lee	HT Lin



Invention Disclosure

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Detailed Description of Invention – Continued		For Use by IP Law	
		Disclosure No.	
		MEG 02-005	
<p>New invention:</p> <p>The over kill problem will be eliminated during chip probing after this physical surface clean</p>			
Witnesses: The Two Witnesses whose Signatures appear below have <u>Read</u> and <u>Understand</u> this Entire Invention Disclosure.		Disclosure Submitted by	
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Signature of Witness	Date	陳慧芳	CK Chen
Eriz L.		Inventor's Signature Date	Inventor's Signature Date
Signature of Witness	Date	J Lee	H T Lin
陳盈智			



Full Name(s) of Inventor(s)		Employee No.	Department	Dept. Code	Tel No.	For Use by IP Law Disclosure No.
English	Chinese					
						MEG-02-005
						Received Date
						(Stamp)

Title of Invention -

☐ English: A Clean process for finishing IC product

☐ Chinese

Background Information - Current Practice and Disadvantages

All the final process steps of metal pad or metal bump are chemical process in the current IC process. There is micro-contamination absorbed on the final metal surface. Over killed problem happen sometimes during chip probing due to micro-contamination on metal pad.

Main Points of Claim (Please List Item by Item)

Add in a physical clean after finish IC process before chip probing. The physical clean can be a inner gas plasma, sputtering etch, ion mill or any bombardment clean.

Problem Solved or Improvements Obtained by this Invention (Please List Item by Item)

To reduce over killed problem during chip probing.

Keyword Search for Patent/Literatures

Patent/Literatures Search Result (Please Specify Similar Patent No. and Literature Citation)

Detailed Description of Invention - (Continued Next Page)

Please see next page

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Signature of Witness Date

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Inventor's Signature Date

Inventor's Signature Date

Inventor's Signature Date

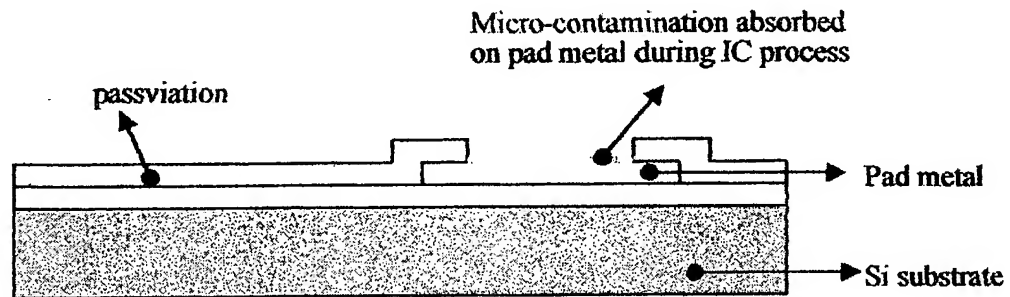
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Detailed Description of Invention – Continued

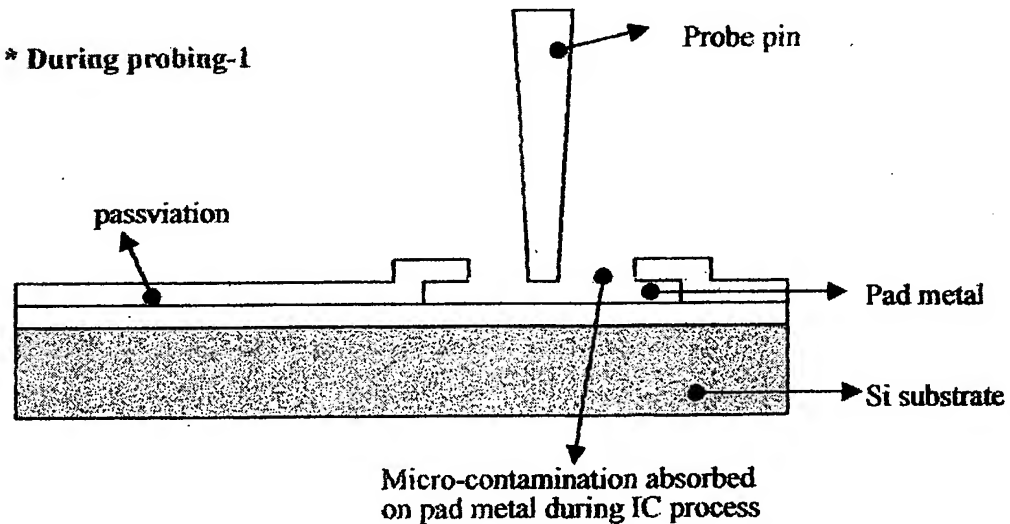
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Current practice 1:

*** After finish IC process**



*** During probing-1**



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Inventor's Signature Date

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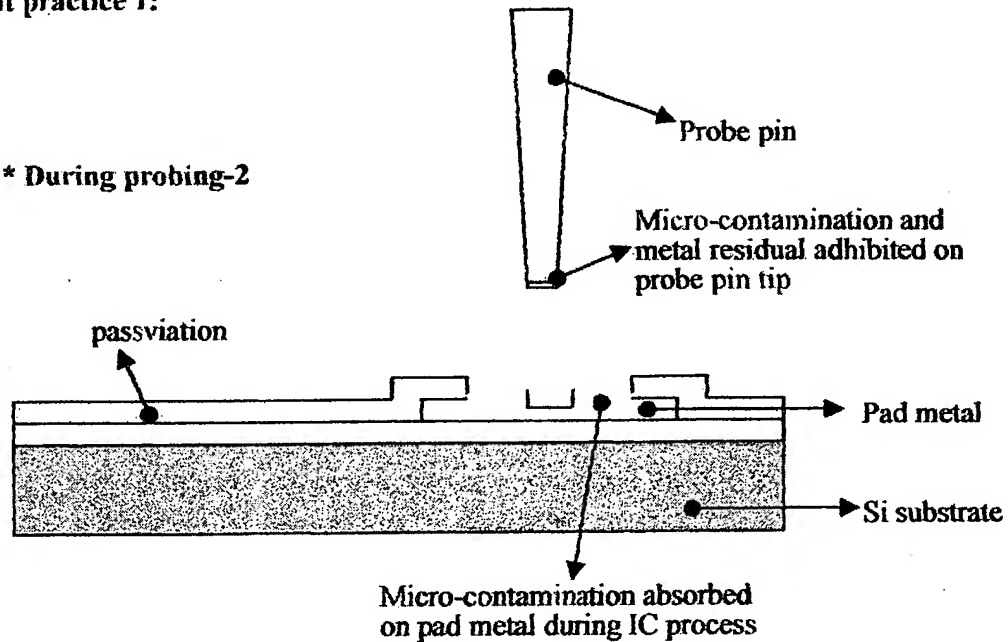
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Detailed Description of Invention – Continued

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Disclosure No.

Current practice 1:

* During probing-2



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Signature of Witness Date

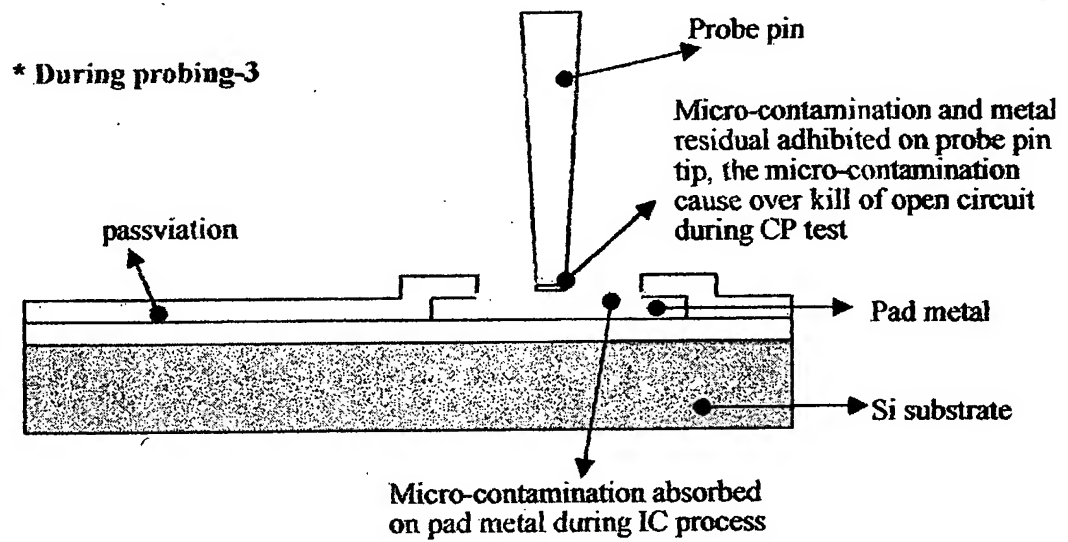
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Inventor's Signature Date

Inventor's Signature Date

Inventor's Signature Date

Inventor's Signature Date

Current practice 1:

Witnesses: The Two Witnesses whose Signatures appear below have Read and Understand this Entire Invention Disclosure.

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Signature of Witness Date

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Inventor's Signature Date

Inventor's Signature Date

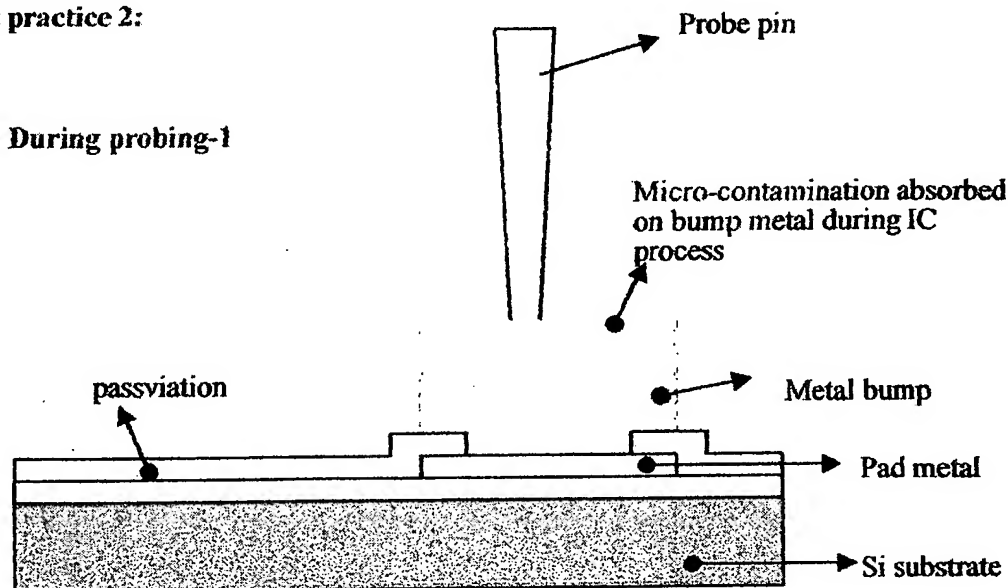
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Detailed Description of Invention – Continued

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Current practice 2:

*** During probing-1**



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Signature of Witness Date

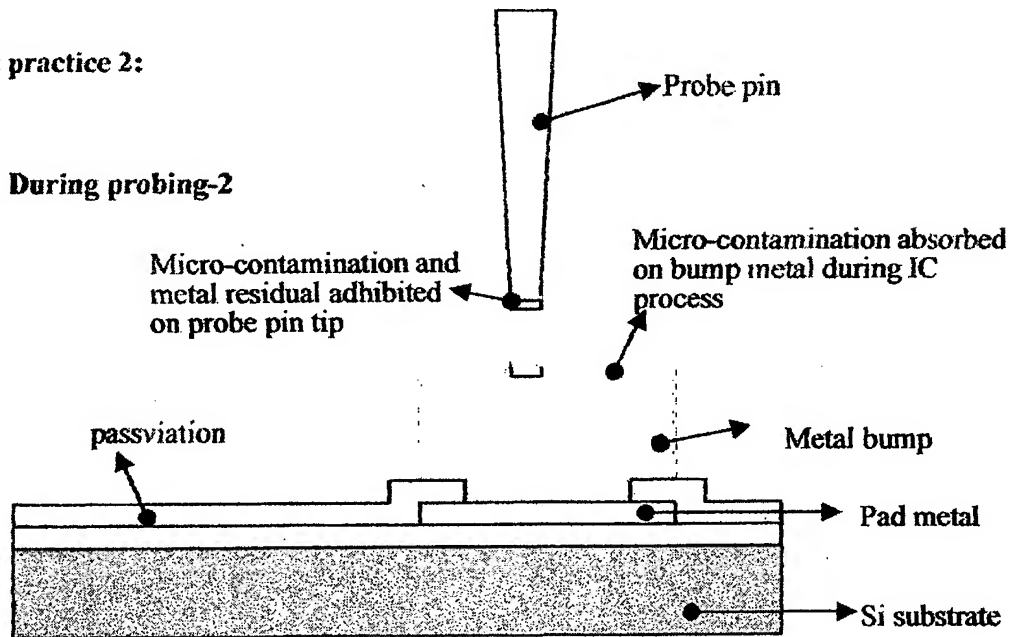
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Inventor's Signature Date

Inventor's Signature Date

Inventor's Signature Date

Current practice 2:*** During probing-2**

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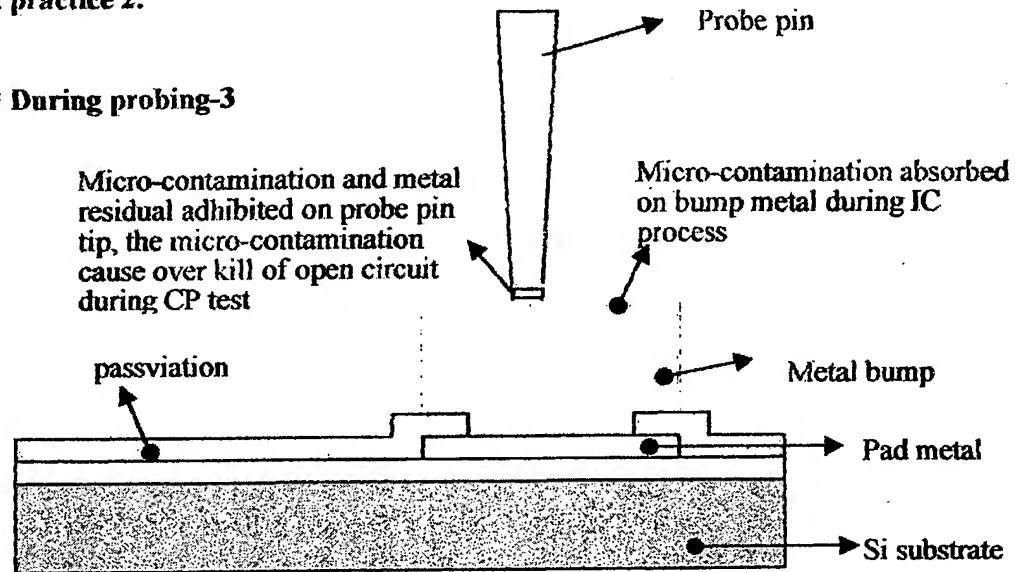
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Inventor's Signature Date

Current practice 2:

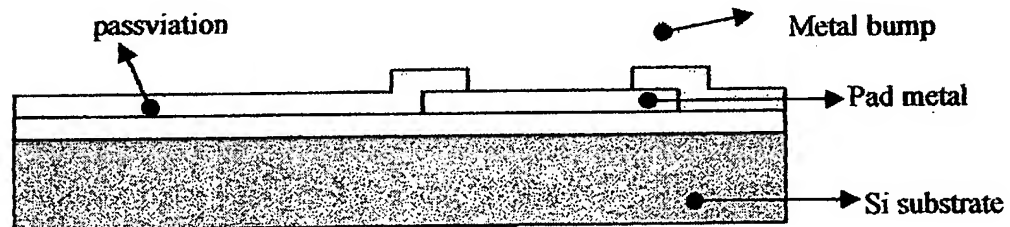
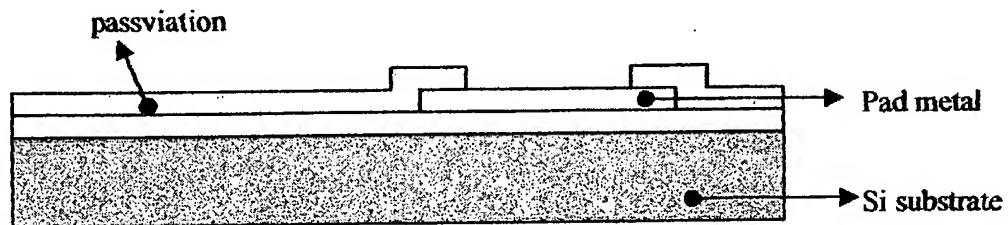
*** During probing-3**



<p>Witnesses: The Two Witnesses whose Signatures appear below have <u>Read</u> and <u>Understand</u> this Entire Invention Disclosure.</p> <p>Signature of Witness Date</p> <p>Signature of Witness Date</p>	Disclosure Submitted by	
	Inventor's Signature Date	Inventor's Signature Date
	Inventor's Signature Date	Inventor's Signature Date

New invention:*** After finish IC process**

Add in a physical clean ex. Ar sputtering or ion mill to remove micro-contamination. The surface become very clean with no chemical absorption.



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Signature of Witness Date

Signature of Witness Date

Disclosure Submitted by

Inventor's Signature Date

Inventor's Signature Date

Inventor's Signature Date

Inventor's Signature Date

New invention:

The over kill problem will be eliminated during chip probing after
this physical surface clean

Witnesses: The Two Witnesses
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